

NATIONAL WEATHER SERVICE POLICY DIRECTIVE 30-3

SEPTEMBER 28, 2004

Operational Systems

OPERATIONAL TEST AND EVALUATION

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives/>.

OPR: OPS2 (D. Hess)

Certified by: OPS (J. McNulty)

Type of Issuance: Initial

SUMMARY OF REVISIONS: None. Initial issuance.

1. This National Weather Service (NWS) policy directive (PD) establishes an operational test and evaluation process, authority, and responsibilities leading to a national deployment decision for new systems or system enhancements under NWS configuration management NWSPD 30-12. The evaluation of system operations and performance (i.e., availability and reliability) ensures major operational systems have adequate system operations life cycle support. Operational test and evaluation is defined as part of the NWS Operations and Service Improvement Process under the Deployment, Maintenance, and Assessment Phase and referred to as Gate 4 stated in NWSPD 10-1.

The NWS will follow an orderly, well-defined process to mitigate problems when new or enhanced systems are deployed and used in NWS service operations. Therefore, new or enhanced systems will be tested first in a simulated operational environment and then at a representative sample of operational systems at field locations affected by the change(s). The success of the operational test and evaluation process leads to a deployment and activation recommendation or commissioning decision, as appropriate, by the NWS Associate Administrator (AA) for Weather Services or designee.

1.1 This policy may be applied to major observing, processing, and dissemination systems procured and operated and/or maintained for other Federal, State, or local agencies by the NWS under case-specific service agreements approved by the AA for Weather Services. Systems leased or owned by a vendor, and provided to the NWS under a lease arrangement, agreement, or contract (e.g., NOAA Weather Wire equipment at NWS field offices) operated and maintained by a commercial entity, by policy will be field tested by the vendor as provided by Government contract language and witnessed by NWS Government officials.

1.2 This directive does not include service demonstrations or other tests associated with evaluating field forecaster or customer satisfaction. These operational tests will be addressed in a separate NWSPD and are the responsibility of the Office of Climate, Water, and Weather Services (OCWWS).

2. The objective of this directive is to establish the requirement and framework for operational test and evaluation of major operational systems or enhancements to those systems leading to a national deployment decision. The documented policy and procedures ensure assessment of effective, safe, and secure system performance as well as validation of sufficient support resources are in place prior to national deployment to meet operational requirements over the system's life cycle.

3. This directive establishes the following authorities and responsibilities:

3.1 For new systems or system enhancements (i.e., program product improvements) which the Office of Science and Technology (OST) has program management responsibility, OST ensures successful completion of the development test and evaluation. The OST will transfer testing responsibility to the Office of Operational Systems (OPS) for operational test and evaluation according to acceptance criteria established between OST and OPS. These criteria include system operations, performance, and life cycle support. Any transfer of program management responsibility of NWS systems between OST and OPS will be documented in Responsibility Transfer Plans and inter-office agreements. These plans may include transfer of the system development test and evaluation. Subsequent to program management responsibility transfer of an operational system, OPS will ensure overall test and evaluation of changes required to maintain the system's operational standards.

3.2 The OPS establishes procedural directives for and manages operational test and evaluation of system operations, performance, and life cycle support.

3.3 Each participating Office, Region, and field office ensures test and evaluation is conducted according to the procedural directives issued to implement this policy.

4. NWS measures effectiveness with this policy directive based upon an acceptable level of system performance during and after the operational test and evaluation. The NWS will track the timeliness of the planning, conducting, and reporting of the operational test and evaluations.

5. This policy directive is supported by the glossary of terms and references listed in Attachment 1.

Signed by John E. Jones, Jr. September 14, 2004
Brigadier General David L. Johnson, USAF, Ret. Date
Assistant Administrator for Weather Services

Attachment 1

GLOSSARY OF TERMS AND SUPPORTING REFERENCES

Glossary of Terms

System - An integrated composite of people, products, and processes that provides a capability to satisfy a stated need or objective.

Major Operational System - The totality of equipment, facilities, and supporting functions (e.g., training, maintenance, logistics, and communication networks) required by the technology program to provide required operational capabilities. All systems defined as major will have an established baseline of system components under NWS Configuration Management.

References

NWS Policy Directive 10-1, Operations and Services Improvement Process (in process)

NWS Policy Directive 30-12, *Configuration and Data Management*

NWS Instruction 30-301, System Test Process (in process)

NWS Instruction 30-302, Field Test Process (in process)

NWS Policy Directive 80-2, *System Commissioning and Decommissioning*

NWS Policy Directive 80-3, *Systems Engineering*